

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS**

VENKEE COMMUNICATIONS, LLC,

Plaintiff,

V.

FORTINET, INC.,

Defendant.

Civil Action No.

JURY TRIAL DEMANDED

COMPLAINT

Plaintiff VenKee Communications, LLC (“Plaintiff” or “VenKee”) hereby brings this Complaint seeking damages and other relief for patent infringement, and demanding trial by jury, and alleges as follows:

THE PARTIES

1. VenKee is a Texas limited liability company having a principal place of business at 5068 W. Plano Parkway, Suite 300, Plano, Texas 75093.

2. Defendant Fortinet, Inc. (“Defendant” or “Fortinet”) is a Delaware corporation having a regular and established place of business at 6111 W. Plano Parkway #2100, Plano, Texas 75093.

JURISDICTION AND VENUE

3. This action arises under the patent laws of the United States, Title 35 of the United States Code, 35 U.S.C. § 271 et seq. The Court has subject matter jurisdiction over this action pursuant to 28 U.S.C. § 1331 and 1338(a).

4. The Court has personal jurisdiction over Defendant because, upon information and belief, Defendant conducts substantial business in the forum, directly and/or through

intermediaries, including: (i) at least a portion of the infringing activity alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to persons in this District, such business including sales conducted by and through Defendant's "Platinum Partner" resellers of its products in Carrollton, Denton, and Plano, Texas.

5. Venue is proper in this District pursuant to 28 U.S.C. §§ 1391(b), (c), and (d). Defendant has a regular and established place of business in this District at 6111 W Plano Pkwy #2100, Plano, TX, 75093, and has committed acts of infringement in the District.

THE PATENT-IN-SUIT

6. U.S. Patent 7,916,684 entitled "Wireless Communication Network Providing Communication Between Mobile Devices and Access Points" was duly and lawfully issued by the U.S. Patent and Trademark Office on March 29, 2011 from Application No. 10/985,589, filed on November 11, 2004. A true and correct copy of U.S. Patent 7,916,684 as issued is attached hereto as Exhibit A.

7. U.S. Patent 7,916,684 was subsequently the subject of three *ex parte* reexaminations, including *Ex Parte* Reexamination 90/013,324 (the "'324 Reexam"). *Ex Parte* Reexamination takes a fresh look at the novelty and nonobviousness of all the subject patent claims without presuming validity. As of September 30, 2018, less than 15,000 of the approximately 10,000,000 U.S. patent issued over time have ever been reexamined. See https://www.uspto.gov/sites/default/files/documents/ex_parte_historical_stats_roll_up.pdf (last accessed August 27, 2019). VenKee's Patent was therefore subject to more extensive and robust examination than usual.

8. Following these years of additional examination, the Reexamination Certificate for the '324 Reexam was duly and lawfully issued by the U.S. Patent and Trademark Office on January

8, 2016. A true and correct copy of the '324 Reexam Certification, which reflects the final patent claims including all three reexaminations, is attached hereto as Exhibit B.

9. By and through the *ex parte* reexaminations, claims 1, 6, 7, 13 and 19 of U.S. Patent 7,916,684 were determined to be patentable as amended, and claims 5, 11, 17 and 20, which each depend from an amended claim, were determined to be patentable. *See* Exhibit B, Col. 1:15-18. Claims 2-4, 8-10, 12, 14-16 and 18 were not reexamined. *Id.*, Col. 1:19. U.S. Patent 7,916,684 and the '324 Reexam Certificate are referred to collectively herein as “the '684 Patent.”

10. The '684 Patent is directed to a wireless communication network that includes a plurality of access points configured as local access points that operate at one of a set of frequencies and within a communication range. The local access points may communicate with a mobile device within the local access point communication range. The wireless network further includes an access point configured as a master access point to communicate with each of the local access points at a frequency that is outside the set of frequencies of the local access points.

11. The '684 Patent identifies and addresses problems in the prior art. Specifically, the '684 Patent teaches that, in prior art networks, “the effective throughput of the network is substantially reduced as the user’s message travels over multiple ‘hops’ to get to the wired backhaul” and that “the effective network data rate drops rapidly as the number of hops increases.” Exhibit A, Col. 1:43-48.

12. The '684 Patent further identifies prior art problems including a “lack of frequency planning and channel allocation to separate the bandwidth of the AP-mobile messages and the backhaul messages between access points that carry the message back to the wired network.” Exhibit A, Col. 1:48-51.

13. The '684 Patent further identifies prior art problems including that “each access point has a single radio that is used to communicate with both the mobile users and the other access points in the network. The lack of available bandwidth for backhaul and frequency planning greatly limits the scalability of this mesh network architecture. As the mesh network is implemented over larger areas, a larger percentage of the total capacity (e.g., backhaul/mobile capacity) is used to transmit updates to the network routing status.” Exhibit A, Col. 1:52-59. The '684 Patent teaches technical solutions to these prior art problems, including using an “access point configured as a master access point to communicate with each of the plurality of local access points at a frequency that is outside the set of frequencies of the local access points.” Exhibit A, Col. 2:7-9.

14. The '684 Patent further teaches the technical solution of “having a master communication channel that is distinct from the local communication channels.” Exhibit A, Col. 2:16-19.

15. The '684 Patent further teaches the technical solution including “a first communication device (e.g., a first radio) corresponding to each of the local access points to communicate between the local access points and mobiles devices . . . using the local communication channels” and “a second communication device (e.g., a second radio) corresponding to each of the local access points to communicate between each of the local access points and the master access point . . . using the master communication channel.” Exhibit A, Col. 2:20-30. The addition of a master access point communicating on a separate frequency addresses the prior art problems identified by the '684 patent, including regarding network scalability, limited backhaul bandwidth, and effective frequency planning.

16. VenKee is the owner by assignment of all right, title and interest in and to the '684 Patent.

THE ACCUSED INSTRUMENTALITIES

17. Fortinet manufactures, uses, sells, offers for sale and/or imports wireless communication network products, such as the FortiAP™ system (the “Accused Instrumentalities”) including the FortiAP™ access points. The FortiAP™ access points are centrally managed by an integrated WLAN controller of a FortiGate® security appliance or through the FortiCloud management portal. The Accused Instrumentalities include the FortiAP™ system, related network infrastructure, and any substantially similar Fortinet networks and devices.

18. The FortiAP™ system comprises multiple FortiAP access points. A combination of FortiAP access points forms a communication cell. Each FortiAP access point uses wireless protocols to communicate with one or more mobile client devices and with each other.

19. The FortiAP™ access points use a different set of frequencies to communicate with mobile devices than to communicate with each other.

COUNT I –INFRINGEMENT OF THE '684 PATENT

20. VenKee repeats and realleges the allegations of all foregoing paragraphs as if fully set forth herein.

21. Fortinet has infringed and continues to infringe one or more claims of the '684 Patent, including at least claim 1, by making, using, selling, offering for sale within, and/or importing into this District and elsewhere in the United States, the Accused Instrumentalities, including Fortinet's FortiAP™ Series of products and related network infrastructure.

22. Claim 1 of the '684 Patent recites:

A wireless network using a common wireless communications protocol comprising:

- (a) a plurality of communications cells configured to use the common wireless communications protocol, each communications cell comprising
- (b) a plurality of local access points arranged to define a given communications cell, each local access point being configured to communicate with a mobile device within a respective wireless coverage area using the common wireless communications protocol and at a respective frequency from among a set of local access point frequencies, and
- (c) a master access point positioned within the given communications cell and configured to
- (d) simultaneously communicate with a mobile device within a respective wireless coverage area of the given communications cell using the common wireless communications protocol and at a respective frequency from among the set of local access point frequencies,
- (e) communicate with each local access point within the given communications cell also using the common wireless communications protocol and at a frequency different from the set of frequencies of the set of local access point frequencies, and
- (f) provide either a wired or wireless backhaul communications link wherein each of the local access points comprises a first radio and a second radio, the first radio configured to communicate with the mobile device and the second radio configured to communicate simultaneously with the master access point, and each of the first radios is configured at a different frequency within the set of local access point frequencies and each of the second radios is configured at the frequency different from the set of local access point frequencies,
- (g) wherein simultaneous wireless communication occurs between (i) mobile devices and local access points, and (ii) local access points and the master access point using the different frequencies,
- (h) wherein said master access points of the plurality of communications cells have alternating wired and wireless backhaul communications links.

23. The FortiAP™ system is a multiple access point wireless network that is managed centrally and uses common access protocols, such as IEEE 802.11 wireless protocols (*see* Exhibit C, FortiWiFi and FortiAP Configuration Guide, Version 6.2.0 (4/23/2019) (“FortiAP™ Configuration Guide”) at 10; Exhibit D, FortiAP™ 11ac Series Data Sheet (“FortiAP™ 11 ac Data Sheet”) at 1) and comprises:

(a) Multiple cells, such as branch offices of an enterprise, configured to use the common wireless communications protocol, such as 802.11 (*see* Exhibit D, FortiAP™ 11 ac Data Sheet at 2);

(b) Each cell includes a plurality of access points for local access within the cell called the “Leaf FortiAP,” which uses a common wireless protocol, such as 802.11, and is configured to communicate with mobile devices such as laptops and cell phones within the reception and transmission range of the given Leaf FortiAP at a specific frequency from a set of frequencies, such as those within the 2.4GHz frequency band (*see* Exhibit C, FortiAP™ Configuration Guide at 65);

(c) A “root node” positioned within a communications cell that uses a FortiAP™ unit, such as a “mesh root FortiAP,” or access point built into a “FortiWiFi” unit, acts as a master access point for the Leaf FortiAP nodes (*see* Exhibit C, FortiAP™ Configuration Guide at 65);

(d) The mesh root FortiAP or other root node simultaneously communicates with local mobile client devices and other leaf nodes on the network using 802.11 or other common communications protocols and at a frequency available from the set of local access point frequencies such as those in the 2.4GHz frequency band (*see* Exhibit E, FortiAP™ 200 Data Sheet at 1; Exhibit C, FortiAP™ Configuration Guide at 65);

(e) The root FortiAP communicates with the leaf FortiAPs over a specific frequency from a set of frequencies, such as those in the 5GHz frequency band, that is different from the frequencies of the local access points, such as those in the 2.4GHz frequency band, using 802.11 or other common wireless communications protocols (*see* Exhibit D, FortiAP™ 11 ac Data Sheet at 12);

(f) The mesh root FortiAP in a given cell provides a wired backhaul communication to the network, and each FortiAP includes two radios, one configured to communicate with users over a given frequency, such as one from the set of frequencies in the 2.4GHz frequency band, and a second radio configured to communicate with the other FortiAPs over a different frequency, such as one from the set of frequencies in the 5GHz frequency band (*see* Exhibit C, FortiAP™ Configuration Guide at 65; Exhibit D, FortiAP™ 11 ac Data Sheet at 12; Exhibit E, FortiAP 200 Data Sheet at 1);

(g) The leaf FortiAPs simultaneously communicate with mobile devices over a given frequency, such as one from the set of frequencies in the 2.4GHz frequency band, and with a mesh root FortiAP over a different frequency, such as one in the set of frequencies in the 5GHz frequency band (*see* Exhibit C, FortiAP™ Configuration Guide at 65; Exhibit D, FortiAP™ 11 ac Data Sheet at 12; Exhibit E, FortiAP 200 Data Sheet at 1);

(h) The FortiAP unit can alternatively connect to the network as a mesh root FortiAP that carries backhaul communications by either a wired connection or by wireless connection via an access point built into a FortiWiFi device (*see* Exhibit C, FortiAP™ Configuration Guide at 65).

24. The foregoing structure, function and operation of the Accused Instrumentalities (including the Fortinet system and its components) meets all limitations of at least claim 1 of the '684 Patent.

25. Fortinet's acts of making, using, selling, offering for sale and/or importing the Accused Instrumentalities are without VenKee's license or authorization.

26. Fortinet's unauthorized actions therefore constitute direct infringement of VenKee's exclusive rights pursuant to 35 U.S.C. § 271(a), either literally or under the doctrine of

equivalents, and VenKee is entitled to recover from Fortinet the damages sustained as a result of Fortinet's infringement of the '684 Patent in an amount to be determined at trial, which amount shall be no less than a reasonable royalty, together with interest and costs as fixed by this Court pursuant to 35 U.S.C. § 284.

27. Fortinet has had actual knowledge of the '684 Patent since at least the service of this Complaint.

28. At least as early as the service of this Complaint, Fortinet indirectly infringes the '684 Patent within the United States by inducement under 35 U.S.C. §271(b). By failing to cease making, using, selling, importing, offering for sale, or importing the Accused Instrumentalities at least as of the service of this Complaint, Fortinet has knowingly and intentionally induced its customers for the Accused Instrumentalities to directly infringe one or more claims of the '684 Patent, including, by: (1) providing instructions or information, for example on its publicly available website, to explain how to use the Accused Instrumentalities, including the use of the Accused Instrumentalities in manners described above, which are expressly incorporated herein; and (2) touting these uses of the Accused Instrumentalities in advertisements, including but not limited to, those on its website. Use of the Accused Instrumentalities in the manner intended and instructed by Fortinet necessarily infringes the '684 Patent.

29. At least as of the service of this Complaint, Fortinet also indirectly infringes the '684 Patent within the United States by contributory infringement under 35 U.S.C. §271(c). Fortinet is aware, at least as of the service of this Complaint, that components of the Accused Instrumentalities are a material and substantial part of the inventions claimed by the '684 Patent, and are designed for a use that is both patented and infringing, and have no substantial non-infringing uses. By failing to cease making, using, selling, importing, or offering for sale the

Accused Instrumentalities at least as of the service of this Complaint, Fortinet has knowingly and intentionally contributed to direct infringement by its customers of one or more claims of the '684 Patent, including, by: (1) providing instructions or information, for example on its publicly available website, to explain how to use the Accused Instrumentalities, including the use of the Accused Instrumentalities in manners described above, which are expressly incorporated herein; and (2) touting these uses of the Accused Instrumentalities in advertisements, including but not limited to, those on its website. Use of the Accused Instrumentalities in the manner intended by Fortinet necessarily infringes the '684 Patent.

30. Fortinet's infringement of the '684 Patent has injured VenKee and VenKee is entitled to recover damages from Fortinet (or any successor entity to Fortinet).

JURY DEMAND

VenKee hereby demands a trial by jury on all issues so triable.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff VenKee Communications, LLC requests that this Court enter judgment against Fortinet as follows:

- A. Adjudicating, declaring and entering judgment that Defendant Fortinet, Inc. has directly infringed the '684 Patent either literally or under the doctrine of equivalents;
- B. Adjudicating, declaring and entering judgment that Defendant has induced infringement and continues to induce infringement of one or more claims of the '684 Patent;
- C. Adjudicating, declaring and entering judgment that Defendant has contributed to and continues to contribute to infringement of one or more claims of the '684 Patent;
- D. Awarding damages to be paid by Defendant adequate to compensate VenKee for Defendant's past infringement of the '684 Patent and any continuing or future infringement

through the date such judgment is entered, including interest, costs, expenses and an accounting of all infringing acts including, but not limited to, those acts not presented at trial;

E. Awarding VenKee pre-judgment and post-judgment interest; and

F. Awarding VenKee such other and further relief at law or in equity as this Court deems just and proper.

Respectfully submitted,

Date: September 19, 2019

\s\ Cecil E. Key

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